

12. Eliminate the Purple Loosestrife and Eurasian Milfoil noxious weed infestations throughout Capitol Lake.

[For additional information regarding this objective, refer to pages 7-6 and 9-1 to 9-7 in the Capitol Lake Adaptive Management Plan - 1999 to 2001 (1999).]

BACKGROUND

Purple Loosestrife was initially discovered in Capitol Lake in 1986. By 1987 the infestation was described as “bad” and initial communications between the Thurston County Noxious Weed Control Board and GA were made. In 1988, GA initiated control measures but in 1989 the Weed Board required GA to remove all Purple Loosestrife flower heads. From 1989 to 1993, flower head removal was performed by various maintenance personnel and contract groups for GA. From 1993 to 1995, GA contracted with Resource Management, Inc. to perform an aquatic herbicide treatment program in Capitol Lake.

From 1996 through 2000, Purple Loosestrife control returned to manual flower head clipping. The result of this was that seed production was controlled but plant stem densities increased. In 1998, wetland soils from the south end of the lake were removed and replaced as a mitigation measure for Heritage Park, but the new soils quickly became infested. In 1999, the Weed Board released 5,000 *Galerucella* beetles as a biological control for Loosestrife.

The conclusions drawn by the Weed Board from this period were that the year 2000 infestation was reduced approximately 80% from 1987 levels. However, the lack of continuity in treatments from year to year and the lack of follow-up monitoring after treatments in the same season has limited the potential benefit of the implemented measures. The conclusion by GA was that cutting just the flower heads has caused increased density of plants and an increasing level of effort just to keep up with the growth.

While there has been a significant reduction in the amount of Purple Loosestrife present in the wetlands adjacent to Capital Lake, the goal of GA is to eradicate this plant from these properties. Eradication of a noxious weed is also the goal of regulatory groups like the Thurston County Noxious Weed Board. The eradication of Purple Loosestrife is important to provide open water and also to eventually allow deep water disposal of dredged sediments in Puget Sound.

In September 2001 the presence of Eurasian water milfoil was discovered in Capitol Lake. While milfoil is not a designated or selected noxious weed in Thurston County, without immediate attention this aquatic weed could eventually grow throughout Capitol Lake with dense mats of floating vegetation. A plan to control and then eradicate the milfoil will be developed. It will be implemented in 2002.

In 2002 GA plans to have the CLAMP Steering Committee adopt the Integrated Aquatic Vegetation Management Plan as the framework for controlling Purple Loosestrife on Capitol Lake. Yearly management may change

based upon the success of the previous year's program and the level of the infestation. GA will also need to have a control plan for milfoil prepared as soon as feasible. It is likely there will be implementation measures to address this noxious weed as well.

The cost to General Administration to control/eradicate noxious weeds at Capitol Lake in 2002 will be \$200,000, of which \$50,000 is being provided by the Washington State Department of Ecology as a grant.

Activities in Years 2003 - 2005:

GA will continue to implement the Aquatic Vegetation Management Plans for both Purple Loosestrife and Eurasian Milfoil.

CLAMP Budget 2003 - 2005:

After initial application and planning the cost to General Administration may be \$95,000 per biennium.

Activities in Years 2005 - 2013:

The activities will be similar to the 2003 to 2005 time period.

CLAMP Budget 2005 - 2013:

The cost to General Administration may be \$95,000 per biennium.



Purple Loosestrife (Lythrum salicaria L.)



Eurasian Milfoil (Myriophyllum spicatum L.)